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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,820	03/19/2004	Anthony Carter	480062.744	7101
35243 7590 12/13/2007 SEED INTELLECTUAL PROPERTY LAW GROUP PLLC 701 FIFTH AVENUE, SUITE 5400 SEATTLE, WA 98104-7092			EXAMINER NGUYEN, PHILLIP H	
			ART UNIT 2191	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/804,820

Applicant(s)

CARTER ET AL.

Examiner

Phillip H. Nguyen

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7-13, 15-20 and 22-32 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 14 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed 10/10/2007.
2. Claims 1-32 are pending and have been considered below.

Response to Amendment

3. The rejection to claims 3, 4, 6, 7, 16, 20, 21, 24 and 28 under 35 U.S.C. 102(e) is withdrawn in view of Applicant's arguments/remarks.
4. The rejection to claim 14 under 35 U.S.C. 103 is withdrawn in view of Applicant's arguments/remarks.
5. Examiner maintains the rejection to all other claims. Examiner in his previous action gave detailed explanation why the prior art is qualified for the rejection.

Allowable Subject Matter

6. Claims 4, 6, 14 and 21 objected to as being dependent upon a rejected base claim, but could be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. For example, both claims 4 and 6 could be allowable if both claims 4 and 6 rewritten in independent form including all of the limitations of claim 1.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 5, 8-13, 15, 17-19, 22, 23, 25-27 and 29-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al. (United States Patent Application Publication No.: 2005/0102660 A1).

As per claim 1:

Chen discloses a method to install software features into an electronic device, the method comprising:

- storing at least one product configuration matrix (PCM) in the electronic device, the PCM including information representative of at least one software feature that can be installed in the electronic device ("**an existing software image resident in the device memory 110 of the electronic device 111**" Paragraph 0041, lines 14-15);
- reading the PCM information ("**comparing an existing software image resident in the device...**" Paragraph 41, lines 14-15 – **In order to compare, reading the file must performed**);

- comparing the read PCM information with information from a configuration control file (CCF) ("**comparing an existing software image resident in the device memory 110 of the electronic device 111 to a newer version of the same software that may be stored in the software repository 113 or an external computer system 128**" Paragraph 0041, lines 14-18); and
- for a match between the PCM information and the CCF information, obtaining a software feature that corresponds to the match and installing that software feature into the electronic device ("**computes differences in the software images and creates an appropriate software package...applying the update package onto the electronic device 111 by processing and executing the instructions provided with the software package**" Paragraph 0041, lines 18-23).

As per claim 2:

Chen further discloses:

- wherein storing the PCM in the electronic device comprises storing the PCM into a data collection device ("**an existing software image resident in the device memory 110**" Paragraph 0041, lines 14-15).

As per claim 5:

Chen further discloses:

- wherein obtaining the software feature from the first location includes obtaining the software feature from at least one of a file system ("**software that may be stored in the software repository 113 or the external computer system 128**" Paragraph 0041, line 17-18), wireless network, and wired network that are all remote from the electronic ("**generator 107 may interface with an electronic device 111 by way of wireless, wireline data communications**" Paragraph 0042, lines 29-30).

As per claim 8:

Chen further discloses:

- wherein obtaining the software feature that corresponds to the match includes obtaining encapsulated code for the software feature ("**creates an appropriate software package**" Paragraph 0041, line 19).

As per claim 9:

Chen further discloses:

- either or both updating the CCF and generating the CCFs if there are updates and additions to software features that can be installed in the electronic device ("**update package onto the electronic device 111**" Paragraph 41, line 21, the **updated package includes the CCF**).

As per claim 10:

Chen further discloses:

- wherein storing the PCM in the electronic device comprising storing the PCM in nonvolatile memory of the electronic device ("**device memory 110 includes random operation memory (ROM), electrically programmable ROM**" Paragraph 0034, lines 8-9).

As per claim 11:

Chen further discloses:

- obtaining the CCF from at least one of a file system ("**software that may be stored in the software repository 113 or the external computer system 128**" Paragraph 0041, lines 17-18), wireless network, and wired network that are all remote from the electronic device ("**generator 107 may interface with an electronic device 111 by way of wireless, wireline data communications**" Paragraph 0042, lines 29-30).

As per claim 12:

Chen further disclose:

- wherein installing the software feature in the electronic device includes installing the software feature without rebuilding an operating system image of the electronic device. **It is inherent in Chen's approach since the operating system has not been rebuilt after the software installation. Beside only**

software is updated, not hardware, no need to rebuild the operating system.

As per claim 13:

Chen discloses:

- storing first information in an electronic device that is indicative of configuration features for the electronic device ("**an existing software image resident in the device memory 110 of the electronic device 111**" Paragraph 0041, lines 14-15);
- storing second information indicative of configuration features that are available for loading into the electronic device ("**a new version of the same software that may be stored in the software repository 113 or the external computer system 128**" Paragraph 0041, lines 16-18);
- automatically comparing the first and the second information ("**comparing an existing software image resident in the device memory 110 of the electronic device 111 to a newer version of the same software that may be stored in the software repository 113 or an external computer system 128**" Paragraph 0041, lines 14-18); and
- automatically loading a configuration feature into the electronic device that corresponding to a match between the compared first and second information ("**computes differences in the software images and creates an appropriate software package...applying the update package onto the electronic device**

111 by processing and executing the instructions provided with the software package” Paragraph 0041, lines 18-23).

As per claim 15:

Chen further discloses:

- wherein storing the second information includes storing the second information in a file that is remote from the electronic device, including storing the file in at least one of a remote file system (**“software that may be stored in the software repository 113 or the external computer system 128”** Paragraph 0041, lines 17-18), wireless network, and wired network (**“generator 107 may interface with an electronic device 111 by way of wireless, wireline data communications”** Paragraph 0042, lines 29-30).

As per claim 17:

Chen further disclose:

- wherein loading the configuration feature into the electronic device comprises loading a software feature into the electronic device without rebuilding an operating system image of the electronic device. **It is inherent in Chen’s approach since the operating system image has not been rebuilt after the software installation. Besides, only software is updated, not hardware, no need to rebuild the operating system image.**

As per claim 18:

Chen further discloses:

- remotely obtaining code in encapsulated format that represents the software feature that is to be loaded into the electronic device ("**creates an appropriate software package**" Paragraph 0041, line 19 – **software is in packaged format**).

As per claim 19:

Chen discloses:

- a machine-readable medium having instructions stored thereon to cause a processor to install software feature into an electronic device ("**a device memory 110 capable of storing and running firmware or software for properly booting up and subsequently operating the electronic device 111**"

Paragraph 0034, lines 5-7), by:

- o reading at least one product configuration matrix (PCM) stored in the electronic device, the PCM including information representative of at least one software feature that can be installed in the electronic device ("**comparing an existing software image resident in the device...**" Paragraph 14, **in order to compare, reading the file must performed**);
- o obtaining a configuration control file (CCF) remotely from the electronic device ("**software that my be stored in the software repository 113 or the external computer system 128**" Paragraph 0041, lines 17-18);

- comparing the read PCM information with information from the obtained CCF (“**comparing an existing software image resident in the device memory 110 of the electronic device 111 to a newer version of the same software that may be stored in the software repository 113 or an external computer system 128**” Paragraph 0041, lines 14-18);
- identifying at least one match between the PCM information and the CCF information (“**computes differences in the software images**” Col 0041, lines 18-19, **computes the difference to identify the match**);
- obtaining a software feature that corresponds to the match and loading that software feature into the electronic device (“**creates an appropriate software package...applying the update package onto the electronic device 111 by processing and executing the instructions provided with the software package**” Paragraph 0041, lines 19-23).

As per claim 22:

Chen discloses:

- a means for storing first information in an electronic device that is indicative of configuration features for the electronic device (“**device memory 110**” Paragraph 0041, line 15);
- a means for storing, as a configuration control file (CCF), second information indicative of configuration features that are available for loading into the electronic device (“**software repository 113**” Paragraph 0041, line 17);

- a means for automatically comparing the first and second information
("comparing an existing software image resident in the device memory 110
of the electronic device 111 to a newer version of the same software that
may be stored in the software repository 113 or an external computer
system 128" Paragraph 0041, lines 14-18); and
- a means for automatically loading a configuration feature into the electronic
device that corresponds to a match between the compared first and second
information ("applying the update package onto the electronic device 111 by
processing and executing the instructions provided with the software
package" Paragraph 0041, lines 21-23).

As per claim 23:

Chen further discloses:

- wherein said means for storing second information includes means for remotely
storing either or both the CCF and the available configuration features remotely
from the electronic device ("**software repository 113 or the external computer
system 128**" Paragraph 0041, lines 17-18).

As per claim 25:

Chen further discloses:

- means for extending and adapting the CCF additional software features to be
automatically installed in the electronic device after other software features have

been previously loaded (**“the software package comprising either a new software package that is loaded in a new electronic device 111 at the time of manufacture or a software update package that is installed as a revision to an existing software package in an electronic device 111”** Paragraph 0041, lines 6-10) and without requiring a rebuild of an operating system of the electronic device (**It is inherent in Chen’s approach since only software is updated, not hardware**)

As per claim 26:

Chen further discloses:

- means present in the electronic device for supporting operation of the electronic device (**“software for properly booting up and subsequently operating the electronic device 111”** Paragraph 0034).

As per claim 27:

Chen discloses:

- an operating system of an electronic device (**it is inherent in order to operating the electronic device, the operating system is stored in the memory device 110 for operating the electronic device 111** Paragraph 0034, line 7);
- a product configuration matrix (PCM) having instruction representative of at least one software feature that can be installed in the electronic device (**“an existing software image resident in the device memory 110 of the electronic device**

111" Paragraph 0041, lines 14-15), and to be compared with information from an external configuration control file (CCF) to determine if there is at least one match between the PCM information and the CCF information ("**comparing an existing software image resident in the device memory 110 of the electronic device 111 to a newer version of the same software that may be stored in the software repository 113 or an external computer system 128**" Paragraph 0041, lines 14-18);

- a communication interface through which to receive a software feature that corresponds to a match between the PCM information and the CCF information ("**wireless or wireline data communications**" Paragraph 0042, line 30);
- a storage medium in which to automatically install the received software feature ("**a device memory 110 capable of storing and running firmware or software**" Paragraph 0034), the software feature being automatically installed in the storage medium substantially without rebuild the operating system (**applying the update package onto the electronic device 111 by processing and executing the instructions provided with the software package**" Paragraph 0041, lines 18-23).

As per claim 29:

Chen further discloses:

- wherein the PCM is stored in a nonvolatile memory location of the electronic device ("**device memory 110 includes random operation memory (ROM), electrically programmable ROM**" Paragraph 0034, lines 8-9).

As per claim 30:

Chen further discloses:

- wherein the PCM comprises an alphanumeric string ("**binary images may be comprised of a pattern of binary or hexadecimal characters that create a unique image...0xFFFF**" Paragraph 0044).

As per claim 31:

Chen further discloses:

- wherein the communication interface can obtain either or both the CCF and software from at least one of a remote file system ("**software may be stored in the external computer system 128**", Paragraph 0041, lines 17-18), wireless network, and wired network ("**may interface with an electronic device 111 by way of wireless or wireline data communications**" Paragraph 0042, lines 29-30).

As per claim 32:

Chen further discloses:

- wherein the electronic device comprises a data collection device ("**within the electronic device 111 resides a device memory 110 capable of storing and running firmware or software for properly booting up...**" Paragraph 0034, line 4-6).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3, 7, 16, 20, 24 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (United States Patent No.: US 2005/0102660) in view of Shaw (United States Patent No.: US 6,341,373).

As per claim 3, 7, 16, 20, 24 and 28:

Chen does not explicitly disclose:

- wherein at least some of the reading, comparing, obtaining, and installing is automatically performed during a boot sequence of the electronic device.

However, Shaw discloses an analogous art for secure downloading, recovery and upgrading during a boot sequence of a electronic device (see at least **FIG. 2**; also see at least col. 3, lines 32-67 "**booting client device 10 and determining whether there is a need for downloading and upgrading application code 26. Initially, boot code**

22, which is further subdivided into its host boot code and Navio boot code portions, takes control of client device 10....").

Therefore, it would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify Chen's approach to perform the downloading and updating firmware during a boot sequence. One would have been motivated to perform the downloading and updating new version or up to dated firmware during a boot sequence of the electronic device in ensure the electronic device functions properly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip H. Nguyen whose telephone number is (571) 270-1070. The examiner can normally be reached on Monday - Thursday 10:00 AM - 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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PN
12/10/2007


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SUPERVISORY PATENT EXAMINER